#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017434

Address: 333 Burma Road **Date Inspected:** 28-Sep-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Xu Le Feng **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Tower & OBG Components

**Summary of Items Observed:** 

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

#### TOWER JETTY

#### MEASUREMENTS ON VERTICAL TRIAL ASSEMBLY EAST TOWER LIFT-3&4

This QA Inspector carried out the dimensional verification on East Tower lift-3 & 4 to check the misalignment and gap between the interior splice plates and longitudinal stiffeners of skin 'A', 'B', 'C', 'D' & 'E'. Measurements were recorded on the data sheet and submitted to the assigned task leader.

### **BAY#10**

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 12 located on Façade channel built-up assembly ND1 – SFSA4 – 328A/B. Welder is identified as 056364. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS -B - P - 2114.

Weld joint # 05 located on Façade channel built-up assembly SD1 – SFSA4 – 63. Welder is identified as 050289. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC

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appeared to comply with the WPS -B - P - 2114.

Weld joint # 05 located on Façade channel built-up assembly ND1 – SFSA4 – 328A/B. Welder is identified as 056200. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS -B - P - 2114.

Weld joint # 06 located on Façade channel built-up assembly SD1 – SFSA4 – 63. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS -B - P - 2114.

Repair welding of weld joint # 1A/B as per the critical weld repair report T-WR#3676 located on East tower Lift-5 Grillage Assembly SSD1 – TL5 – 1B/F. Welder is identified as 057258. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 3G (3F) - Repair. (See attached photo)

## Fluxcored Arc Welding (FCAW):

Weld joint # 18 located on Façade channel built-up assembly SD1 – SFSA4 – 328 A/B. Welder is identified as 057180. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2133.

Weld joint # 22 located on Façade channel built-up assembly SD1 – SFSA4 – 328 A/B. Welder is identified as 054069. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2133.

# ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

Heat Straightening:

Heat Straightening being performed on Bike Path identified as BK004A6 by oxy-acetylene flame method to remove the distortion that occured after welding. ZPMC Quality Control (QC) Inspector is identified as Sun Tian Liang present at the location. This activity appeared to comply with the Heat Straightening Report # HSR1 (B) – 9014.

#### **BAY#11**

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 11A located on Lift-5 Bracket ND1 – BRSA5 – 2. Welder is identified as 054460. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS - B - T - 3213 - Tc - U4b.

Weld joint # 07A located on Lift-5 Bracket ND1 – BRSA5 – 2. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS - B - T - 3213 - Tc - U4b.

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### ORTHOTROPIC BOX GIRDER (OBG) AT BAY#11

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 107 located on Bike Path BK004A8 – 017. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2133.

Weld joint # 022 located on Bike Path BK004A6 – 022. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2131. (See attached photo)

Weld joint # 109 located on Bike Path BK004A8 – 021. Welder is identified as 205649. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2133.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





### **Summary of Conversations:**

No Relevant Conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer